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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/050,603	01/18/2002	Yoji Tanaka	030673-132	4632

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EXAMINER

LUK, EMMANUEL S

ART UNIT	PAPER NUMBER
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1722

DATE MAILED: 09/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/050,603	<b>Applicant(s)</b> TANAKA, YOJI	
	<b>Examiner</b> Emmanuel S. Luk	<b>Art Unit</b> 1722	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 May 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 1 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-5, 7 and 9 is/are rejected.
- 7) ☒ Claim(s) 6, 8 and 10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
     If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claim 1, drawn to a method, classified in class 264, subclass 328.1.
  - II. Claims 2-10, drawn to an apparatus, classified in class 425, subclass 577.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus as claimed can be practiced another and materially different process such as having the punch in the extended position prior to injection of the resin.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with Bill Roland, a provisional election was made with traverse to prosecute the invention of Group II, claims 2-10. Affirmation of this election must be made by applicant in replying to this Office action. Claim 1 is withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 2-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Watanabe (4370119).

Watanabe teaches the apparatus having a fixed mold part (9), a moving side mold part (12), a cavity (34), a pin (16) that can be moved from a projecting position into the cavity and a withdrawal position outside the cavity, a pin moving mechanism (20) including a fluid pressure cylinder, the pin moving mechanism is attached to the fixed side mold parts side. A disc gate (Fig. 1) and the pin located in the center of the disc.

The movement of the punch and eject pin during closed and open states is an intended use of the apparatus. Intended use of the apparatus does provide structural limitations needed in an apparatus claim.

7. Claims 2 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Sawaya (5439371).

Sawaya teaches the apparatus having a fixed mold part (12), a moving side mold part (13), a cavity (19, 21), a pin (51) that can be moved from a projecting position into the cavity and a withdrawal position outside the cavity, a pin moving mechanism (56) including a fluid pressure cylinder.

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The movement of the pin during closed and open states is an intended use of the apparatus. Intended use of the apparatus does provide structural limitations needed in an apparatus claim.

8. Claims 2-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Okada et al (5658600).

Okada teaches the apparatus having a fixed mold part (12), a moving side mold part (11), a cavity (13), a pin (5) that can be moved from a projecting position into the cavity and a withdrawal position outside the cavity, a pin moving mechanism (19) including a fluid pressure cylinder, the pin moving mechanism is attached to the fixed side mold part side.

The movement of the pin during closed and open states is an intended use of the apparatus. Intended use of the apparatus does provide structural limitations needed in an apparatus claim.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. Claims 5, 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe (4370119).

Watanabe teaches the apparatus having a fixed mold part (9), a moving side mold part (12), a cavity (34), a pin (16) that can be moved from a projecting position into the cavity and a withdrawal position outside the cavity, a pin moving mechanism (20) including a fluid pressure cylinder, the pin moving mechanism is attached to the fixed side mold parts side. A disc gate (Fig. 1) and the pin located in the center of the disc.

Watanabe fails to teach punch and eject pins.

Watanabe does teach a core rod (16) and punches (3, 4). The punches having separate movement mechanisms (5,7) comprising of fluid cylinders. It would have been obvious to one of ordinary skill in the art ordinary skill in the art to modify Watanabe with the punches to be punch pins because it is merely a change in the shape of the punches that have the same function.

The movement of the punch and eject pin during closed and open states is an intended use of the apparatus. Intended use of the apparatus does provide structural limitations needed in an apparatus claim.

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12. Claims 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawaya (5439371).

Sawaya teaches the apparatus having a fixed mold part (12), a moving side mold part (13), a cavity (19, 21), a pin (51) that can be moved from a projecting position into the cavity and a withdrawal position outside the cavity, a pin moving mechanism (56) including a fluid pressure cylinder.

Sawaya fails to teach punch and eject pins.

However, Sawaya teaches multiple pins having separate moving mechanisms (Fig. 2) and thus it would have been obvious to one of ordinary skill in the art to modify Sawaya with some of the pins being eject pins and other being punch pins because the use of the pins are merely intended use.

The movement of the pin during closed and open states is an intended use of the apparatus. Intended use of the apparatus does provide structural limitations needed in an apparatus claim.

13. Claims 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okada et al (5658600).

Okada teaches the apparatus having a fixed mold part (12), a moving side mold part (11), a cavity (13), a pin (5) that can be moved from a projecting position into the cavity and a withdrawal position outside the cavity, a pin moving mechanism (19) including a fluid pressure cylinder, the pin moving mechanism is attached the fixed side mold parts side.

Okada fails to teach punch and eject pins.

However, Okada teaches multiple pins having separate moving mechanisms (16, 19) and thus it would have been obvious to one of ordinary skill in the art to modify Okada with some of the pins being eject pins and other being punch pins because the use of the pins are merely intended use.

The movement of the pin during closed and open states is an intended use of the apparatus. Intended use of the apparatus does provide structural limitations needed in an apparatus claim.

***Allowable Subject Matter***

14. Claims 6, 8 and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

15. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record, including Okada et al, Sawaya and Watanabe, fails to teach an injection mold assembly having the pin moving mechanism include a first moving plate attached the punch pin, a second moving plate to the eject pin, third moving plate to a hollow knock pin for moving the first moving plate and knock pin for moving the second moving plate, a cylindrical guide bushing attached to the first moving plate and guides a front end of the hollow knock pin, the knock pin having an engage hook part at the front end capable of switching between a state where hook part is



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elastically displaced in a radial direction relative to the guide bushing and engages the guide bushing and a state where hook part is released from the guide bushing, a fixed side attaching plate to the fixed side mold plate is attached is equipped with a fixed-side guide pin. The closest prior art fails to teach the multiple plates and the hollow knock pin, wherein the knockpin having the engaging hook part.

### ***Conclusion***

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ahern and Morikita.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel S. Luk whose telephone number is (703) 305-1558. The examiner can normally be reached on Monday through Friday 8 to 4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L. Walker can be reached on (703) 308-0457. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.

E.L.

  
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